cobetter filtration

SINTERED POROUS POLYETHYLENE FILTER MEDIA

CUSTOM SINTERED PE FILTERS PROVIDE HIGH FLOW, CLEAN FILTRATION AND SELF-SEALING (ONE-WAY) PROTECTION OF SAMPLE FLOW

Cobetter sintered porous PE material is specially designed for specific filtration and venting applications.

Sintered PE material is made by heating and compressing PE powder material under temperature that is lower than its melting point. This special method renders the material with good chemical resistance and excellent corrosion resistance.

The sintered PE filter has a repeating linear molecular structure (CH_2-CH_2), that provides an inert structure, strong molecular bonds, and stable chemical resistance. It is characterized by good physical properties, light weight, good thermoplasticity, and wide pore size range from 3 to 100 μm, which can be widely used in solid-liquid filtration/separation for medical and pharmaceutical equipment.

APPLICATIONS

Safety IV Catheters

A safer and more efficient solution in infusion therapy.
The self-sealing filter rapidly self-seals when contacting liquid (including blood), to protect healthcare workers from pathogen exposure when using IV catheters.

Arterial Syringe Vents

Using self-sealing sintered PE as air vents for infusion therapy can protect the blood vessels of patients by cutting off the chamber when contacting with fluid, thus protecting hospital employees from blood diseases and blood-borne pathogens..

Pipettes

Assurance of quality and purity of the samples. Absorbs the harmful aerosols generated during the pipetting process, prevent pipetters and samples from contamination.

Dialysis Bags

With good chemical and physical performance, dialysis bag filters provide better airtightness, help to adjust the flow rate and back pressure of the bags, and thus improves filtration efficiency.

Suction Canister Filters

Using the functional PE filters, the suction cannister can shut off automatically when the collecting fluids contact the filter surface, thus protecting the vacuum system lines of the hospital.

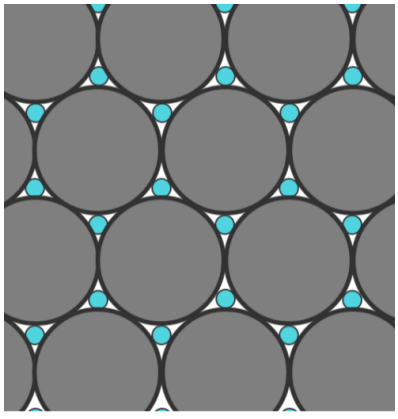
Additional Applications

- Filters /Plastic Frits
- Column Frits
- Dissolution Filters
- Pre-Analytic Serum Filters
- Oral Inhaler Filters
- Nebulizer Filters
- Nasal Inhaler Filters
- Vent Filter for Suction Bags
- Filter Plugs for Dialysis Solutions
- Arterial Blood Collection Needles
- Safety IV Catheters
- Arterial Syringe Vents
- Pipettes
- Dialysis Bags
- Hemodialysis Cartridges and Hemodialysis Bags
- Hydrophobic Shut-off Filter for Suction Liner Systems
- Bacteria Filter for Suction Canisters
- Custom Configured for Semi-Automatic and Automatic Medical Equipment
- Diffuser

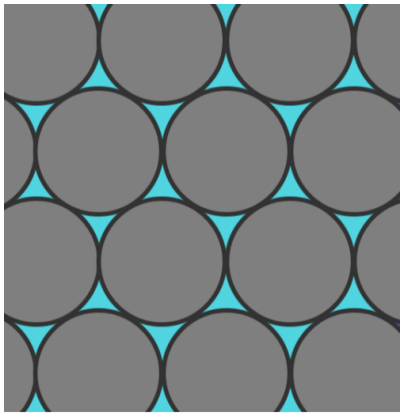
FEATURE	BENEFIT
Custom sintered materials, configurations and pore sizes	Material selection, size, sintering method, compression method, and stabilization allow construction of custom sizes and pore sizes to match a variety of processes Can be designed with two layers and two colors
	Available in pore size from 3 to 100 µm to meet process needs.
High porosity media construction	High porosity structure enables high flow rates and lower pressure drop. No powders or particles shedding, low extractables and leachables Good humidity stability. Low protein adsorption
High-density Polyethylene (HDPE) or Ultra-high Molecular Weight Polyethylene (UHMWPE) material	HDPE can be used continuously at temperatures up to 80°C (176°F) and intermittently used at 116°C (240°F). It is generally used in large pore size applications
	UHMWPE is a strong and light weight material, in addition to the characteristics of the high density polyethylene (HDPE) properties, it also has the characteristics of resistance to acids, alkalis, and multiple organic solvents. The temperature limit of this material is the same as HDPE. UHMWPE is generally used to make the smaller pore size materials.
Available in a variety of forms	Sintered PE Filter : 3 to 100 µm
	Sintered PE Plate/Membrane: 20 to 50 µm
	Custom shapes of the PE porous media
Surface feature options	Hydrophilic (Liquid Applications)
	Hydrophobic (Gas Applications)
	Hydrophobic with Self-Sealing (when exposed to water)

SELF-SEALING OPTION

PE Sintered Filters unique auto-sealing provides protection of healthcare workers and equipment. After contacting water, the polymer elastomer expands rapidly, blocking the pores of the PE media. The airway closes swiftly, not allowing water or liquid to pass through, making the filter self-sealing.



In the dry condition, the polymer elastomer does not expand, and the airway between the PE filter remains high permeability.



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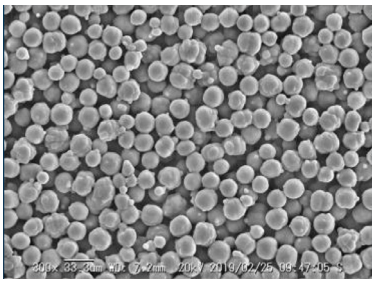
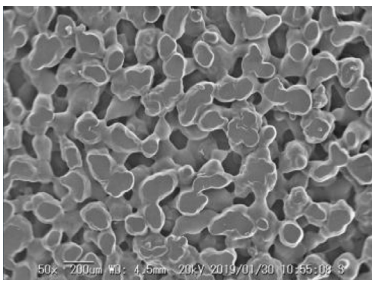


Pre Sintered PE Material



After the Sintered Process

BannerIndustries

www.bannerindustries.com | Technical Sales: filtration@bannerindustries.com

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